State Board of Education Approved
February 2002

GRAPHIC DESIGN & DIGITAL IMAGING

COURSE DESCRIPTION

This level of the graphic communications sub cluster covers the principles of design and general layout procedures. Content will cover electronic systems and software programs used in graphic design, page composition, image conversion, and digital printing. Advanced knowledge and skill in graphic design and digital imaging will be enhanced in a graphic communication production laboratory facility through experiences which simulate the graphic communications industry and school-based and work-based learning opportunities.

Prerequisite:	Visual Art and Design or Graphic Communications
Recommended:	Career Management Success
Recommended Credits:	2
Recommended Grade Levels:	11th &12th

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GRAPHIC DESIGN & DIGITAL IMAGING STANDARDS
STANDARDS

1.0 Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.

2.0 Students will analyze and apply typography to the design of a visual image.

3.0 Students will analyze and demonstrate design principles and processes.

4.0 Students will demonstrate job-engineering skills in design and digital imaging.

5.0 Students will demonstrate image acquisition skills related to preparing graphic images for incorporation into layout design.

6.0 Students will demonstrate necessary skills related to assembling page elements for output.

7.0 Students will demonstrate skills to output images.

GRAPHIC DESIGN & DIGITAL IMAGING

STANDARD 1.0

Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.

LEARNING EXPECTATIONS

The student will:

1.1 Demonstrate dignity in work.
1.2 Participate in SkillsUSA-VICA as an integral part of classroom instruction.
1.3 Evaluate school, community, and work place situations by applying problem-solving and decision-making skills.
1.4 Demonstrate the ability to work professionally with others.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

1.1 Demonstrates leadership skills through exhibiting characteristics of integrity and pride in work.
1.2 Demonstrates employability skills.
1.3 Analyzes a situation in the work place and uses the *Professional Development Program* of SkillsUSA-VICA to resolve it and create a desirable environment.
1.4.A Participates with others in a work-related experience.
1.4.B Manages a project, an office, or a national voting delegate campaign with Tennessee SkillsUSA-VICA.

SAMPLE PERFORMANCE TASKS

- Attend a professional organization meeting such as a Chamber of Commerce meeting.
- Participate in various SkillsUSA-VICA programs and competitive events.
- Develop an annual program of work.
- Prepare a resume.
- Develop a plan of action for an officer candidate or national voting delegate.
- Participate in job shadowing or internship within the printing industry.

INTEGRATION LINKAGES

Art, Math, Math for Technology, Chemistry, Science, Health, Manipulative Skills, Communication Skills, Teamwork Skills, Language Arts, Research and Writing Skills, Decision-Making Skills, Critical-Thinking Skills, Secretary's Commission on Achieving Necessary Skills,

(SCANS), Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), Tennessee Occupational Safety and Health Administration (TOSHA), PrintED, SkillsUSA-VICA

GRAPHIC DESIGN & DIGITAL IMAGING

STANDARD 2.0

Students will analyze and apply typography to the design of a visual image.

LEARNING EXPECTATIONS

The student will:

2.1 Demonstrate a knowledge of the common typeface classifications, their components, and application.
2.2 Analyze relationship of size, spacing, and formatting to the appearance of the printed piece.
2.3 Evaluate design variations that exist within type families.
2.4 Analyze type selection for a visual image.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

2.1 Distinguishes seven typeface classifications and their identifying characteristics.
2.2.A Distinguishes between display and body type.
2.2.B Demonstrates the ability to measure type.
2.2.C Uses various type spacing and arrangements in a visual image.
2.3 Illustrates type style variations in a visual image.
2.4 Applies appropriate typefaces to a design.

SAMPLE PERFORMANCE TASKS

- Diagram a letter and label its components.
- Acquire examples of type classifications, styles, formats, and spacing from magazines or other sources.
- Design a logo using your initials for use on personal stationary.

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GRAPHIC DESIGN & DIGITAL IMAGING

STANDARD 3.0

Students will analyze and demonstrate design principles and processes.

LEARNING EXPECTATIONS

The student will:

3.1 Assess equipment and media appropriate for design and layout.
3.2 Evaluate various items that can be designed and produced in Design and Digital Imaging.
3.3 Evaluate design principles needed to compose a successful layout.
3.4 Evaluate color theory in designing a visual image.
3.5 Develop a design concept and communicate the idea in a form that others can appreciate.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

3.1 Demonstrates appropriate use of drawing and coloring tools for design and layout.
3.2 Analyzes product designs or packaging that are compatible with desktop publishing.
3.3 Demonstrates the principles of design to produce a functional image.
3.4 Employs color theory to produce a functional unified image.
3.5 Creates a design using the graphic communication layout process.

SAMPLE PERFORMANCE TASKS

- Evaluate a poster for unity, contrast, page proportions, and balance.
- Develop a list of tools and their appropriate uses in the layout process.
- Prepare a thumbnail, rough, and comprehensive layout for a full color design project.
- Invite a graphic designer to class to speak about the design and layout process.

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GRAPHIC DESIGN & DIGITAL IMAGING

STANDARD 4.0

Students will demonstrate job-engineering skills in design and digital imaging.

LEARNING EXPECTATIONS

The student will:

4.1 Establish and maintain a positive relationship with client.
4.2 Plan and coordinate production.
4.3 Preview materials for imaging.
4.4 Resolve file errors.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

4.1 Builds and maintains a rapport with client.
4.2.A Creates a job ticket or docket.
4.2.B Evaluates client job specifications to define appropriate production procedures and processes.
4.3.A Receives and reviews components of the job.
4.3.B Identifies required job components.
4.3.C Performs preflight on clients' files.
4.4 Documents and resolves file errors.

SAMPLE PERFORMANCE TASKS

- Role-play the employee/client relationship.
- Preflight a client's files with conflicting and missing components.
- Resolve common incompatibility problems.

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GRAPHIC DESIGN & DIGITAL IMAGING

STANDARD 5.0

Students will demonstrate image acquisition skills related to preparing graphic images for incorporation into layout design.

LEARNING EXPECTATIONS

The student will:

5.1 Employ the use of a digital camera to produce images.
5.2 Demonstrate analog-to-digital conversion using a scanner.
5.3 Demonstrate image editing using industry software.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

5.1.A Prepares and sets up a digital camera for acquiring image.
5.1.B Captures image digitally according to quality standards.
5.2.A Crops, adjusts, and mounts images on a scanner.
5.2.B Scans originals using scanner software.
5.2.C Evaluates images, makes adjustments, and saves files.
5.3.A Sets appropriate size and resolution of digital images.
5.3.B Performs digital color correction and retouching.
5.3.C Converts file formats.
5.3.D Manipulates images to meet specifications.

SAMPLE PERFORMANCE TASKS

- Take a digital photograph of a piece of fruit.
- Scan line and continuous copy and save as a TIFF image.
- Retouch and adjust color of a digital image using image-editing software.

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GRAPHIC DESIGN & DIGITAL IMAGING

STANDARD 6.0

Students will demonstrate necessary skills related to assembling page elements for output.

LEARNING EXPECTATIONS

The student will:
6.1 Build a document using industry software.
6.2 Prepare files for imaging.
6.3 Troubleshoot document problems.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:
6.1A Uses appropriate industry software for document.
6.1.B Imports or enters data into page layout and/or graphics software.
6.1.C Formats and places copy on a document.
6.1.D Scales and places photographs, illustrations, and other graphic images on a document.
6.1.E Prepares proofs for client approval.
6.2.A Adds crop marks and sets up overlaying methods.
6.2.B Reviews file and edits colors according to production requirements.
6.2.C Provides all final electronic files and required components for output.
6.3.A Identifies problems having to do with text, graphics, and images.
6.3.B Resolves and documents problems having to do with text, graphics, and images.

SAMPLE PERFORMANCE TASKS

- Create a 4-page newsletter using windows, blocks, text, graphics, frames, and headings.
- Create a printed piece using tints, reverses, and manipulated type.
- Proofread and make corrections on a newsletter.

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GRAPHIC DESIGN & DIGITAL IMAGING

STANDARD 7.0

Students will demonstrate skills to output images.

LEARNING EXPECTATIONS

The student will:

7.1 Demonstrate how to trap files.
7.2 Demonstrate how to impose pages or job components.
7.3 Create a proof.
7.4 Operate and maintain output devices.

PERFORMANCE STANDARDS: EVIDENCE STANDARD IS MET

The student:

7.1.A Determines which elements to trap.
7.1.B Determines trap settings.
7.1.C Traps digital files within appropriate software applications.
7.2.A Interprets job specifications and selects an appropriate imposition technique.
7.2.B Imposes digital files using appropriate software applications according to layout and job requirements.
7.3.A Creates both digital and analog proofs.
7.3.B Inspects and corrects proofs compared to client specifications and company standards.
7.4.A Sets up and operates output devices according to manufacturer procedures.
7.4.B Processes output materials according to production specifications.
7.4.C Installs appropriate consumables into output devices.

SAMPLE PERFORMANCE TASKS

- Experiment with several different electronic trapping techniques.
- Produce a job using electronic imposition.
- Proofread and make necessary corrections on digital and analog copy.
- Output film to an imagesetter.
- Output media for printing.

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